Office of the Director of Defense Information

Progress Report

on

DoD Corporate Information Management (CIM)

6th AFCEA Mid-Atlantic Intelligence Symposium

October 29, 1991

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CIM Programs Currently in Progress

CIM Program	Executive Agent
Civilian Payroll	DFAS
Travel	DFAS
Retired Pay	DFAS
Contract Payment	DFAS
Financial Operations	DFAS
Government Furnished Materials	DFAS
Civilian Personnel	Air Force
Depot Maintenance	Air Force
Materials Requirements	Air Force
Distribution Center Operations	DLA
Materials Asset Management	Army
CALS Technical Documentation	Army
Materials Item Introduction	Marine Corps
CALS Materials Acquisition Management	Navy
Engineering Drawing Management	Navy
Composite Health Care System Blood Management System, Medical Logistics, Dental Services, Theater Mgmt.	Several Executive Agents

Significant Recent CIM Developments

Programs:

 Initiation of CIM program in Procurement.

 Progress in Depot Maintenance CIM program.

 Good progress in Medical CIM programs.

 Successful prototype of CIM in C3I (Close Fire Support).

 * Reorganization of CALS.

 * Identification of Base Support as CIM program.

Supporting Base:

 Work completed on DoD software toolset RFQ.

 Completed CIM staffing and financial controls.

 * Defined DoD Systems Inter-operability Standards.

 * Implementation of DoD Data Dictionary services.

 * Organization of DoD Technology Re-use Center.

 * Consolidation of DFAS technology into DISA utility.

 * Speeding up DISA Data Network Utility.

 * Announcement of Business Re-engineering Process.

Re-organization and Re-direction of CALS Program

- Emphasis placed on delivery of savings in 1992-95.

- Principal focus: Reduction in ATF acquisition costs.

- Immediate action: Merger of Army's (ACALS) and Air Force's (JUSTIS) overlapping programs. Likely immediate savings: $150-$300 million acquisition costs.

- Immediate action: Merger of all engineering data CALS programs into Navy's EDMICS.

- Consolidating EDI (Electronic Data Interchange) into CALS.

- Merging CALS standards program into DISA.

Potential New CIM Initiative: Base Support System

- Identified 40+ common Service installation functions such as: Information security; housing management; Family matters; facilities management; environmental support, etc.

- Estimated 70% commonalty of practices and systems.

- Army currently proceeding with $3 billion + program to modernize installation support functions. In Phase I of program consolidated 300 applications into 27.

- Applications directly related to improving tactical unit readiness.

DoD CIM Systems Inter-operability

•Information Technology Policy Board*
reached inter-service agreement on
technical standards for inter-operability of
all CIM computer and communications systems.

•Implemented agreement with National
Institute of Standards & Technology to proceed
with special Standards for DoD.

* Weekly decision-making meetings. ITPB averages two policy
decisions/week.

DoD Data Dictionary

- Start-up as DoD(DISA) activity: October 1, 1991

- Includes 7115 Certified Data Definitions

- Estimated Inventory, October, 1992: 50,000+.
  Will included C3I Data Definitions.

- Requests from VA and CIA to participate.

- Army first recipient of "Gold Nugget" award for
  initiation of this program.

DoD CIM Technology Reuse Center

- Start-up as DoD(DISA) activity: October 1, 1991

- Initial capitalization of software components: $50 Million

- Estimated Software Inventory, October, 1992: $ 1 Billion

- Administrative Systems Savings: $2+ Billion (10yr DCF)

- Reuse will be extended to C3I (Command Center) applications in 1Q 1992.

- Will add hardware "leasing" to create "Technology Reuse Center" in FY1993. Strong Congressional endorsement.

Creating DISA Information Services Utility

• To be expanded from DFAS computer assets January 1, 1992

Data Centers:
- Initial transfer: Three data centers, 582 personnel.
- Eligible for future transfer: 14 data centers. 2,000 personnel.

Software Design Centers:
- Initial transfer: Seven design centers, about 1,000 personnel
- Eligible for further transfer in 1992/93: 16 design centers, about 4,000 personnel.

Creating DISA Data Network Utility

- To be formed from independently managed data networks.

- Initial transfer: DLA Network.

- Eligible for future transfer: 20+ component networks plus several networks operated by contractors.

- Major technology upgrades:
  - analog to digital
  - value-added services (e-mail, software distribution)
  - end-to-end network control for security
  - major thrust for survivability.

- Savings will be identified in 2Q 92.

The CIM Business Re-engineering Process Model
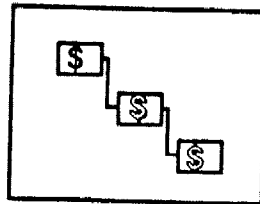
CONDUCT BASELINE ANALYSIS

> Train Participants
> Select Activities
> Interview Users
> Gather Costs
> Transform Costs
> Determine Unit Costs
> Develop Bills of Activities
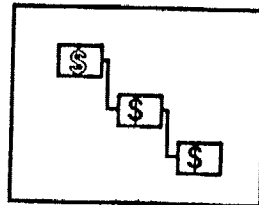
CONDUCT IMPROVEMENT ALTERNATIVES ANALYSIS

> Analyze Costs
> Determine Non-Value Added Activities
> Compare Benchmarks
> Compare Best Practices
> Set Improvement Targets
> Establish Improved Performance Measures
> Determine Business Process Improvement Opportunities
> Use Bill of Activities to Simulate Improvements
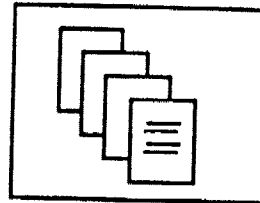
IMPLEMENT IMPROVEMENT ACTIONS

> Charter Immediate Process Improvement Actions
> Eliminate or Reduce Non-Value Added Actions
> Eliminate Waste
> Simplify Processes
> Challenge Unnecessary Documentation and Procedural Requirements
> Propose Value Added Activity Investment Initiatives
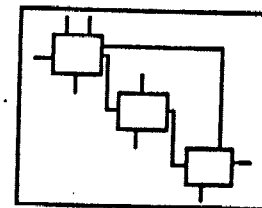
CONDUCT DETAILED BUSINESS PROCESS MODELING

> Re-use/Extend Findings
> Automate Only Value Added Activities
> Develop Consensus View of User Requirements for Shared Data/ Shared Information Systems
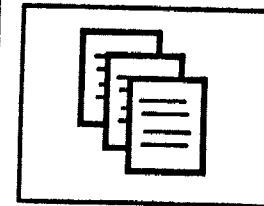
BUILD BUSINESS CASE*

* Completed training of 1600 analysts

Functional Economic Analysis

- Quantifies costs and benefits using Discounted Cash Flow analysis.

- Accounts for risks.

- Applies to decisions involving existing and proposed:

  - Business methods & Information technology

- Focuses on Operations/Management ratio as the measure of "overhead cost" efficiency (the DoD Tooth/Tail ratio).

The Corporate Information Management Measure of Efficiency

Industrial Measure of Managerial Efficiency:

Revenues	$xxxx
Minus: Operations	$xxxx
Value-Added	$xxxx
Minus: Management	$xxxx
Profit	$xxxx

Managerial Efficiency = Value-Added/Management

DoD Measure of Managerial Efficiency:

Budget	$xxxx
Minus: Operations	$xxxx
Management	$xxxx

CIM Efficiency = Operations/Management = Tooth/Tail

Case Study Example

- Baseline

  - Manual record-keeping and labeling

  - Redundant record-keeping

  - Separate personnel and material records

- Alternatives

  - Build new system (A)

  - Build composite system (B)

  - Share systems with other agencies (C)

Comparison of Functional Cost Alternatives

≜ File Baseline Alt A Alt B Alt C Simulate View Print Exit Help 10:42:10 AM

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Summary of Functional Area
Total Cost and Savings

Millions of Current Year Dollars

Current

Baseline

Alt C

Alt B

Alt A

FY92   FY93   FY94   FY95   FY96   FY97

RADCF (Alt A)		RADCF (Alt B)		RADCF (Alt C)	
High	$184	High	$147	High	$59
Expected	$170	Expected	$131	Expected	$44
Low	$150	Low	$115	Low	$25
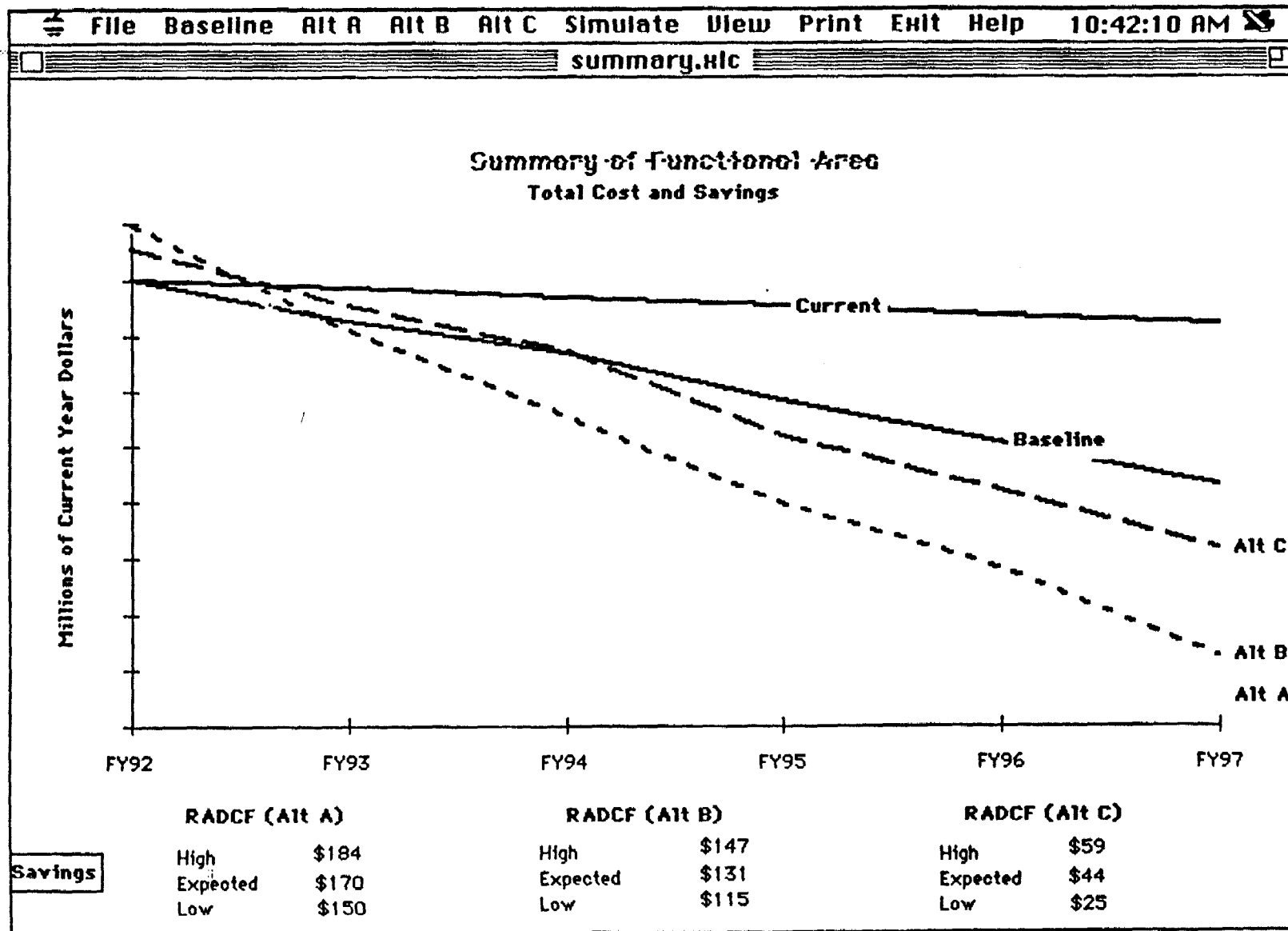
Savings

Tooth/Tail Ratio Analysis During Functional Downsizing

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Baseline
Total Operations
Total Management & Support

Management &
Support

Tooth/Tail

Operations

Millions of Current Year Dollars

Tooth/Tail

0.75
0.70
0.65
0.60
0.55
0.50

FY92   FY93   FY94   FY95   FY96   FY97

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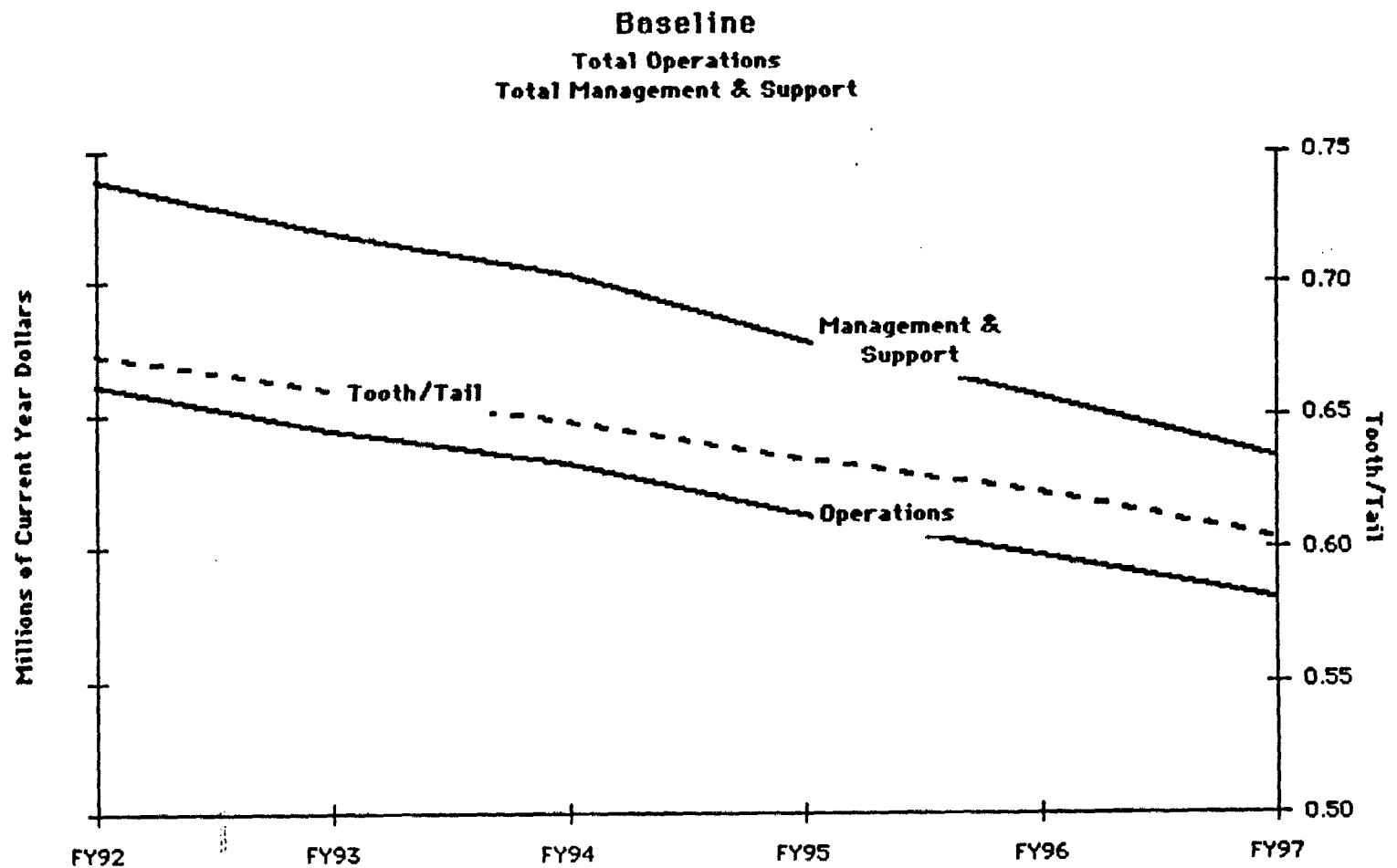
Cost Savings and Tooth/Tail Ratio for Preferred Alternative
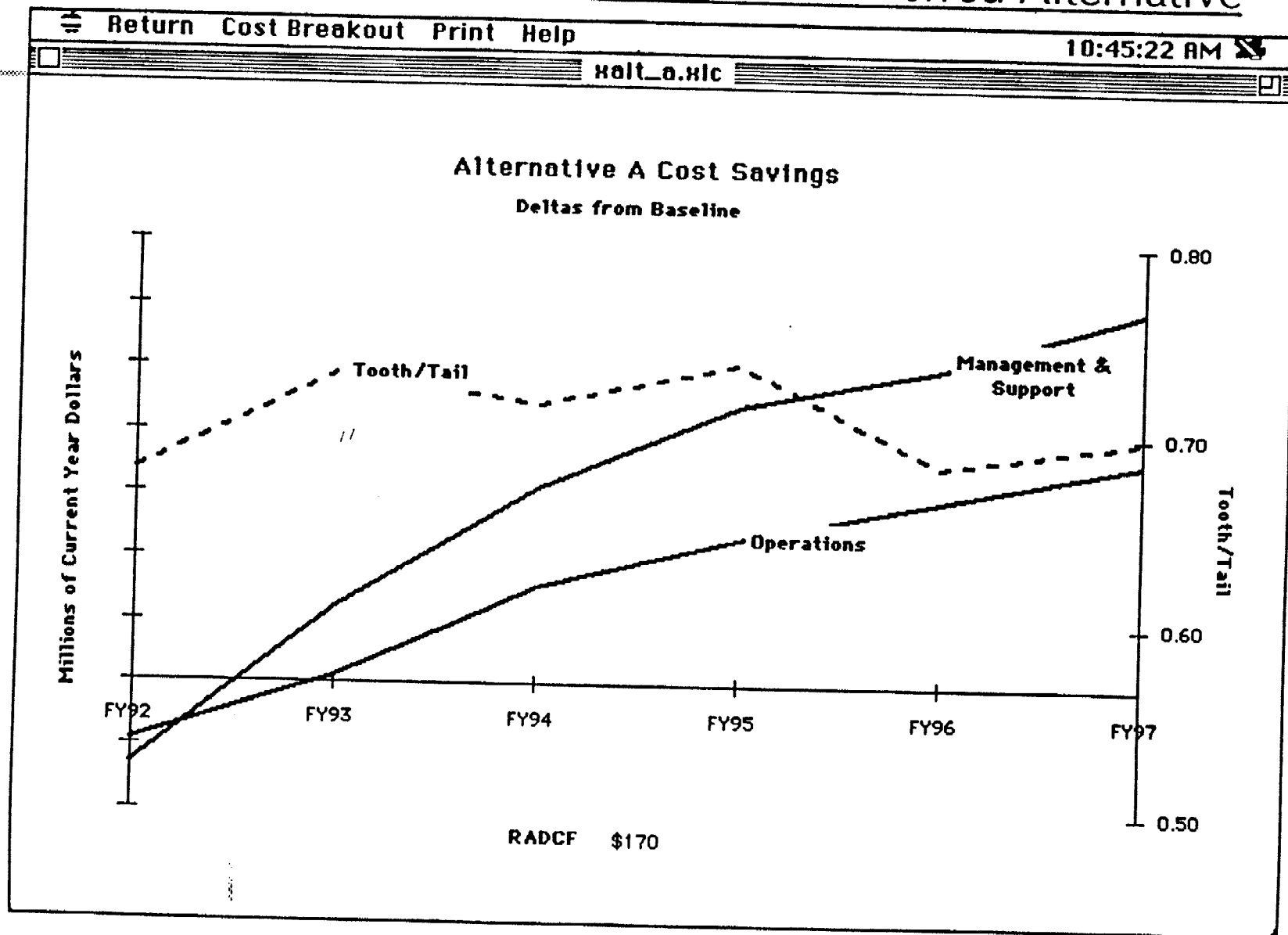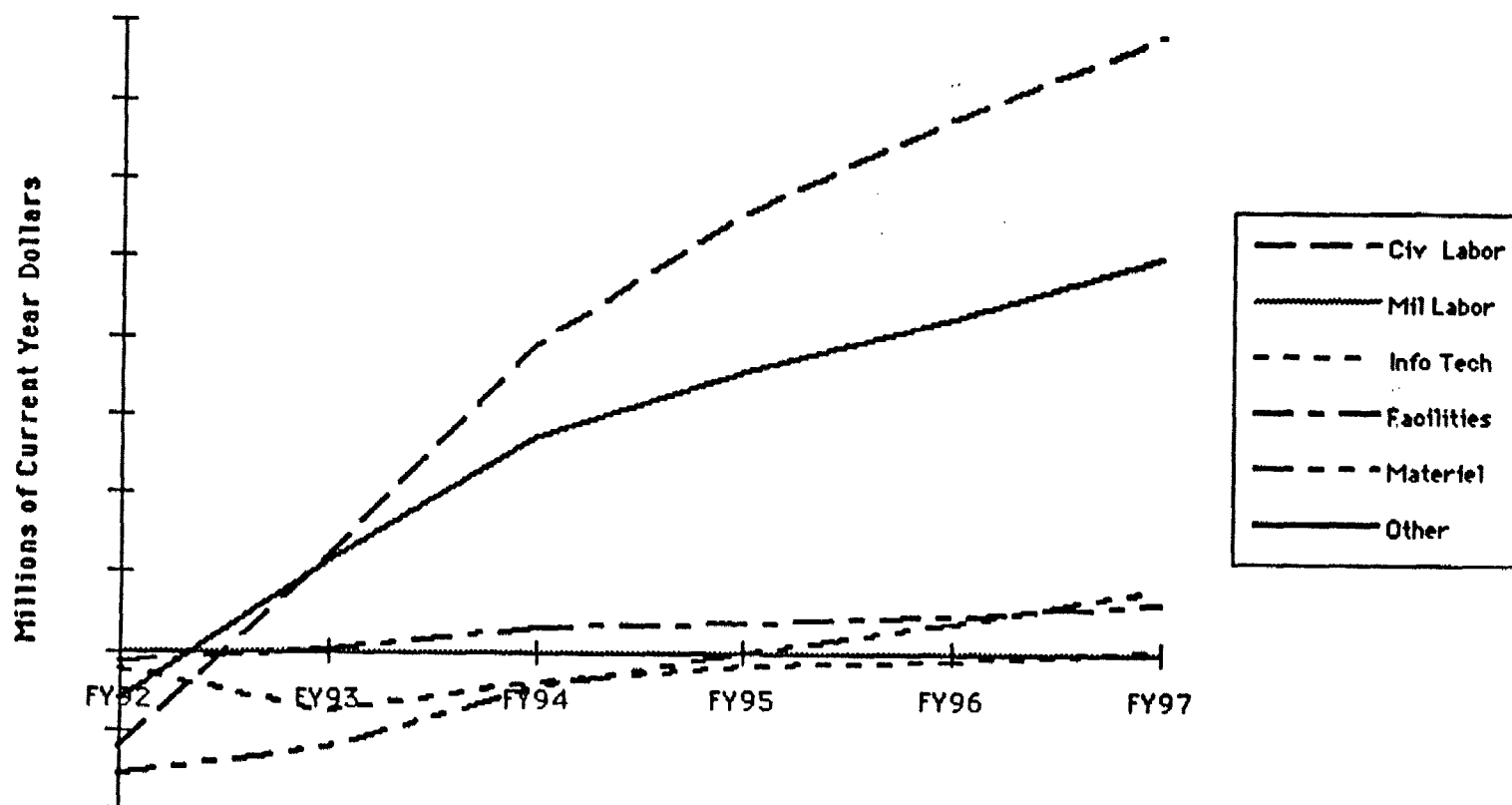
Ft. Eustis Engineering & Housing Costs, Oct.90-June 91 ($000's)

Cost Element	Total $	% of Total
Labor (Civilian only)	7,084	29.2%
Materials	1,458	6.0%
Equipment	635	2.6%
Utilities	7,281	30.0%
Contracts	7,501	30.9%
Automation Costs	33	0.1%
Other Costs	218	0.9%
Post Overhead Costs	24	0.1%
TOTAL	$24,234	100.0%

Costs of Performing Individual Job Order Work

Externally Generated IJO Request

Internally Generated IJO Request

Generate Internal IJO Requests

$17,600
.82 FTEs

Resources

IJO Work Request

Admin Support Services

Notification of Work Performed

Provide Administrative Support

$42,200
1.41 FTEs

Requests Rejected/Awaiting Approval

Other Means of Accomplishment

Completed IJO Documentation

Process IJO

$232,900
8.43 FTEs

Scheduled Work

Perform Work In-House

$2,227,100
80.5 FTEs

Direct Materials: $794,100

DEH Personnel

Completed Work

Activity Costing for Individual Job Orders

ACTIVITY	OUTPUT COST	OUTPUT TYPE	OUTPUT VOLUME	UNIT COST
Generate Internal IJO Work Request	$18,006	Work Authorization	735	$24.50
Receive IJO Work Request	$12,253	Entered IJO Request	1,337	$9.16
Determine Envir Considerations	$4,661	Environmental IJO Review	782	$5.96
Review/Validate IJO Work Request	$14,815	Reviewed IJO	1,256	$11.80
Develop Budget Estimate	$9,444	Estimated IJO	719	$13.13
Approve IJO Expenditure	$2,316	Decision Made	719	$3.22
Approve IJO Expenditure	$774	Decision Made	719	$1.08
Complete Detailed Estimate	$36,502	Complete Detail Estimate	180	$202.79
Obtain Materials	$22,541	IJO Material Line Item	1,707	$13.21
Obtain Materials	**$76,975**	**IJO Material Line Item**	**1,707**	**$ 45.09**
Schedule Work	$14,854	Scheduled IJO	158	$94.01
Schedule Work	$2,366	Scheduled IJO	158	$14.97
Perform Work	$2,266,270	IJO Hour	103,834	$21.83
Finalize IJO Reimbursement	$13,613	Completed Reimbursement	68	$200.19
Finalize Documentation	$1,424	IJO Document Package	158	$9.01
Finalize Documentation	$3,267	IJO Document Package	158	$20.68
Finalize Documentation	$774	IJO Document Package	158	$4.90
TOTAL ACTIVITY COSTS	$2,500,855			

Issues Pending Resolution:

- Restructuring of Materials and Logistics CIM program.
- Integration of civilian pay and personnel systems.
- Integration of military pay and personnel systems.
- Integration of Reserves Systems with Base Support.
- Applying the CIM process to OSD and the Pentagon.
- Validating TRANSCOM CIM as C3I prototype.
- Completion of Technical Skills Adequacy Assessment.
- Completion of network security reviews by NSA & DIA.
- Completion of Data Center competitive benchmarking.
- Implementing new Life-Cycle Management policy.

Overall Assessment

- Technology capabilities spotty and eroding.
- C3I CIM needs emphasis. Ultimately C3I drives CIM.
- Network and computer security needs may limit projected information technology savings.

+ Good progress in establishing technology directions.
+ Favorable: press, professional organizations, academia.
+ Good cooperation from Services and Agencies.
+ Congress, GAO, GSA and OMB remain encouraging.

Summary

+ Need two more years before we can relate CIM programs to large provable effectiveness gains.

+ Meanwhile, morale and commitment remains high.